



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 214205

Roll No.

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M. C. A.

(SEM. IV) THEORY EXAMINATION, 2014-15
OBJECT ORIENTED SYSTEM & PROGRAMMING C++

Time : 3 Hours]

[Total Marks : 100

- Note :**
- (1) Attempt all question.
 - (2) All question carry equal marks.

1 Attempt any FOUR questions : **5x4=20**

- (a) Distinguish between object oriented programming and procedure oriented programming.
- (b) Discuss the importance of data abstraction and encapsulation with real time example.
- (c) Explain static and dynamic polymorphism with example.
- (d) At what stage of the program memory is allocated to an object.
- (e) The cin and cout are not used as keywords. Why ?
- (f) Write notes on overloading new operator and delete operator.

2 Attempt any FOUR questions. **5x4=20**

- (a) Explain dynamic allocation with an example.
- (b) What is meant by an abstract class? Why is it required?
- (c) In which order the constructors and destructors are executed? Explain with example.
- (d) What is the difference between opening a file with constructor function and opening a file with open() function.
- (e) Write a program to swap two integer values by using call by reference.
- (f) Write a C++ program for the following specification
Class : Address Book
Data Member : Name, Address, PhoneNo., Email Relationship
Member Function : Insert Data(), Display Data(), SearchPhNo()

3 Attempt any TWO questions : **10x2=20**

- (a) Explain different types of inheritance with suitable examples.
- (b) State the various functions that can have access to private and protected members of a class.
- (c) Write a C++ program to find the volume of cube, cylinder, sphere, cone and rectangular box using function overloading.

4 Attempt any TWO questions - **10x2=20**

- (a) Describe the overloading pointer operator and comma operator with relevant example.
- (b) Explain Generic function .Write a C++ program for Generic bubble sort.
- (c) Illustrate the features of templates in the following perspectives. Also list out the advantages of the
 - (i) Class Template
 - (ii) Function Template
 - (iii) Member Function Template

5 Attempt any TWO questions : **10x2=20**

- (a)
 - (i) Write a program using a try block to default and throw an exception if the conditions "divide-by-zero" occurs.
 - (ii) Discuss briefly various exception handling options.
- (b) Explain briefly the following :
 - (i) Namespaces
 - (ii) Generic Classes
- (c) Write a C++ program to accept two filenames from user id source and destination filenames copy contents of source file to destination file.
